and naphthyl lower alkyl esters of said carboxyl group and carbamoyl, carbazoyl, and cyano groups; R<sup>2</sup> represents a hydrogen atom, a lower alkyl group, a lower alkoxy group, R<sup>4</sup>s(O)<sub>n</sub> group wherein R<sup>4</sup> represents a lower alkyl group and n represents 0, l or 2, a lower alkanoyl group, [an aryl group, an aroyl group, a carboxyl group or the functional derivative radical thereof selected from the group consisting of a carboxylic acid lower alkyl ester radical carboxylic acid aralkyl ester radical, carbamoyl, carbazoyl and cyano groups], a phenyl group, a naphthyl group, a benzoyl group, a naphthoyl group, a R<sup>1</sup> group, a lower alkenyl group, a sulfamoyl group, [or a heterocyclic radical] a pyridyl group or a thiadiazoyl group; and R<sup>3</sup> represents a lower alkyl-substituted tetrozolyl group or a lower alkyl-substituted thiadiazolyl group and the pharmaceutically acceptable salts thereof.

Claim  $^{1}$ . (twice amended) A  $^{7}$ . (3-Hydroxy-4-substituted isothiazol-5-yl) thioacetamido-7 $^{4}$ -methoxy-3-heterocyclic thiomethyl- $^{2}$ -cephem-4-carboxylic acid represented by the formula:

E 24500 SCH<sub>2</sub>CONH CH<sub>2</sub>-S-R<sup>3</sup>

wherein R<sup>2</sup> represents a hydrogen atom, a lower alkyl group, a lower alkoxy group, R<sup>4</sup>S(O)<sub>n</sub> group wherein R<sup>4</sup> represents a wer alkyl group and n represents 0, 1 or 2, a lower alkanoyl up, [an aryl group, an aroyl] a phenyl group, a naphthyl group, nzoyl group, a naphthoyl group, a carboxyl group or [the ional] a derivative [radical] thereof selected from the